

International Journal of Theoretical Physics 2012 vol.51 N1, pages 259-262

Any Regular Measure on Conjugation Logic is a Complex Measure

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Abstract

Let H be the complex Hilbert space with conjugation J . Denote by $B(H)_{co}$ the quantum logic of all J -projections on H . A non-zero function $\mu(\{\cdot\}) := \text{tr}(A(\{\cdot\}))$ on $B(H)_{co}$ is said to be a regular measure. Here A is a trace class operator. It is shown that there exists a J -projection p such that. We give a description of the hermitian and skew hermitian regular measures. © 2011 Springer Science+Business Media, LLC.

<http://dx.doi.org/10.1007/s10773-011-0903-y>

Keywords

Conjugation, Hilbert space, Idempotent, Measure, Projection